

Title (en)
MACHINE TOOL AND CUTTING METHOD

Title (de)
WERKZEUGMASCHINE UND SCHNEIDVERFAHREN

Title (fr)
MACHINE-OUTIL ET PROCÉDÉ DE COUPE

Publication
EP 3395483 A1 20181031 (EN)

Application
EP 16878203 A 20161115

Priority
• JP 2015249396 A 20151222
• JP 2016083769 W 20161115

Abstract (en)
[Problem] Provided is a machine tool and cutting method that are able to machine the inclined surface of a workpiece with high accuracy. [Solving Means] A machine tool 100 for cutting a workpiece W having an inclined surface Wa includes a main spindle 10 that rotates while holding the workpiece W, a tool post 20 that holds a cutting tool T to cut the inclined surface Wa of the workpiece W, a mover 30 that relatively moves the workpiece W and the cutting tool T in a direction R including at least a Y-direction perpendicular to both a Z-direction parallel to an axis AX of the main spindle 10 and an X-direction that is perpendicular to the Z-direction and determines the amount of cutting of the workpiece W. The mover 30 includes a Y-direction guide 35 disposed on the tool post 20, the Y-direction guide 35 guiding movement of the cutting tool T in the Y-direction, and the Y-direction guide 35 has a guide surface 21a along a surface S2 perpendicular to a direction of a thrust force F2 that occurs when cutting the inclined surface Wa using the cutting tool T.

IPC 8 full level
B23B 5/38 (2006.01); **B23B 1/00** (2006.01); **B23B 21/00** (2006.01); **B23B 25/06** (2006.01); **B23B 29/32** (2006.01); **B23Q 17/20** (2006.01)

CPC (source: EP US)
B23B 1/00 (2013.01 - EP US); **B23B 5/38** (2013.01 - EP US); **B23B 25/06** (2013.01 - EP US); **B23B 29/32** (2013.01 - EP US); **B23Q 2220/002** (2013.01 - US); **B23Q 2717/003** (2013.01 - US)

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 3395483 A1 20181031; **EP 3395483 A4 20190828**; JP 6638736 B2 20200129; JP WO2017110307 A1 20180920; US 2019001417 A1 20190103; WO 2017110307 A1 20170629

DOCDB simple family (application)
EP 16878203 A 20161115; JP 2016083769 W 20161115; JP 2017557794 A 20161115; US 201616064532 A 20161115